G-3000H

802.11g Wireless Access Point

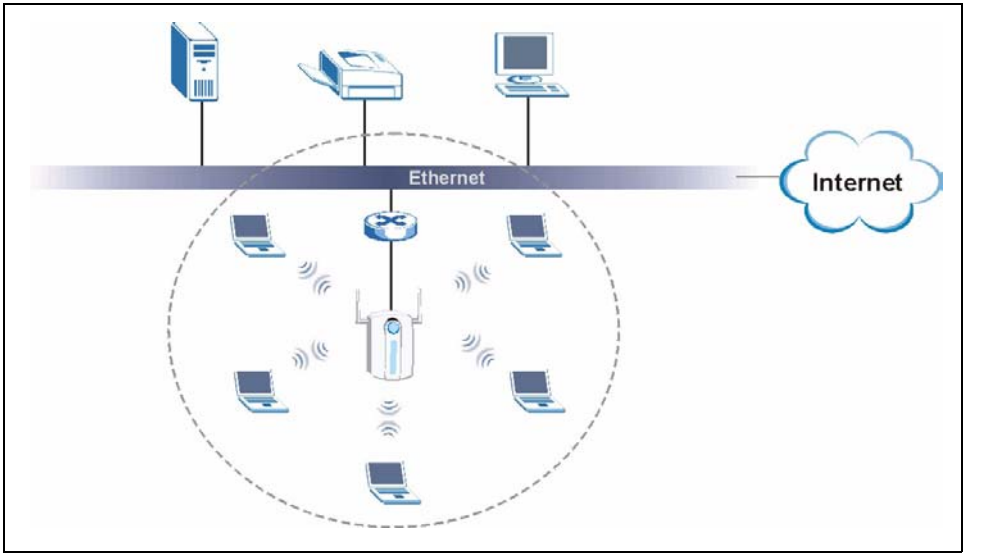
Quick Start Guide

Version 3.50
7/2005

ZyXEL

Overview

The ZyAIR G-3000H offers highly secured wireless connectivity to your wired network with IEEE 802.1x, Wi-Fi Protected Access, WEP data encryption and MAC address filtering. This Quick Start Guide shows how to set up and configure the ZyAIR to allow wireless clients to access your wired network. See your User's Guide for more information.

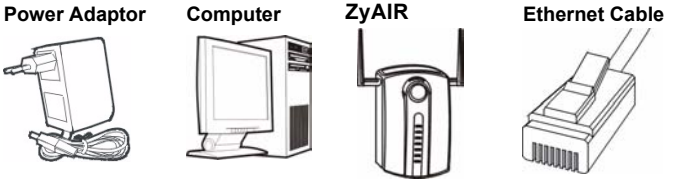


The following lists what you need to do:

1. Hardware Connections
2. Accessing the Web Configurator
3. Internet Access Setup
4. Hardware Installation
5. Power over Ethernet (optional)
6. Troubleshooting

1 Hardware Connections

You need the following:



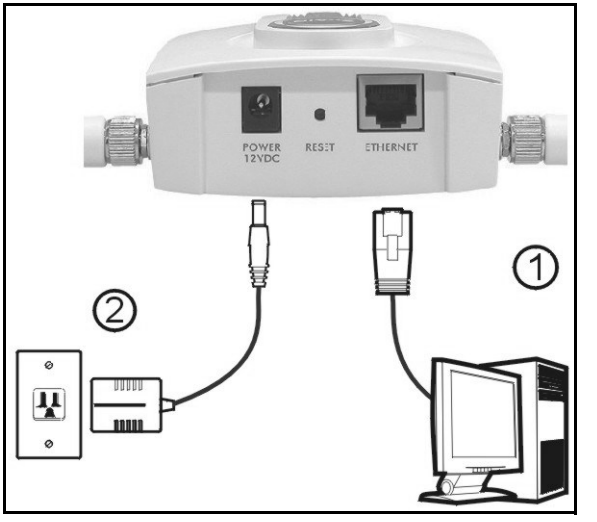
Note: You may need your Internet access information.

Do the following to make hardware connections for initial setup.

1 Using an Ethernet cable, connect the **ETHERNET** port to a computer for initial configuration.

2 Connect the **POWER 12VDC** socket to a power source using only the included power adaptor for your region.

Note: Connect the ZyAIR **ETHERNET** port to an Ethernet jack with Internet access after you have completed the initial configuration.



1.1 The LEDs

The **PWR** and the **ZyAIR** LEDs turn on when the power is connected. The **ETHN** LED turns on, if the **ETHERNET** port is properly connected.

See the ZyAIR Front Panel LED Description table in the User's Guide for more information.

2 Accessing the Web configurator

Use Internet Explorer 6.0 and later or Netscape Navigator 7.0 and later versions with JavaScript enabled.

2.1 Set Up Your Computer's IP Address

This section shows you how to assign your computer a static IP address in the 192.168.1.2 to 192.168.1.254 range with a subnet mask of 255.255.255.0. This ensures that your computer can communicate with your ZyAIR. The following instructions are for the Windows 2000, Windows NT and Windows XP operating systems.

1 In Windows XP, click **Start**, **Control Panel**.

In Windows 2000/NT, click **Start**, **Settings**, **Control Panel**.

2 In Windows XP, click **Network Connections**.

In Windows 2000/NT, click **Network and Dial-up Connections**.

3 Right-click **Local Area Connection** and then click **Properties**.

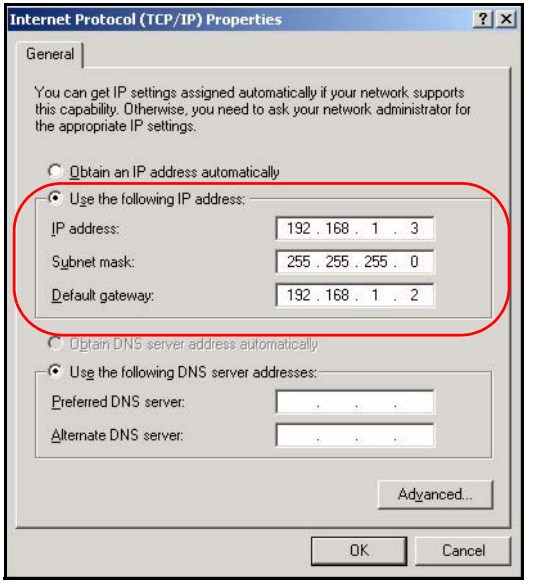
4 Select **Internet Protocol (TCP/IP)** (under the **General** tab in Windows XP) and click **Properties**.

5 The **Internet Protocol TCP/IP Properties** screen opens (the **General tab** in Windows XP).

6 Select **Use the following IP address** and fill in the **IP address** (choose one from192.168.1.3 to 192.168.1.254), **Subnet mask** (255.255.255.0), and **Default gateway** (192.168.1.2) fields.

7 Click **OK** to close the **Internet Protocol (TCP/IP) Properties** window.

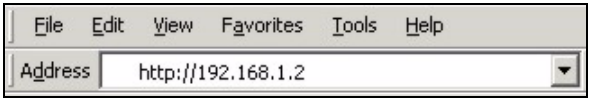
8 Click **Close** (**OK** in Windows 2000/NT) to close the **Local Area Connection Properties** window.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 3
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
192 . 168 . 1 . 2
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Close the **Network Connections** screen.

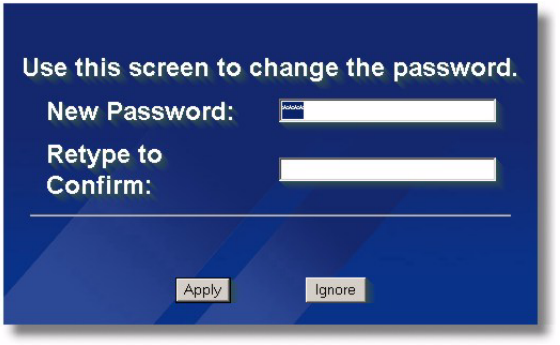
Note: Even though you can connect to the ZyAIR wirelessly, it is recommended that you connect your computer to the **ETHERNET** port for initial configuration.

1 Launch your web browser. Enter **192.168.1.2** (the ZyAIR's default IP address) as the address.



2 Click **Login** (the default password 1234 is already entered).

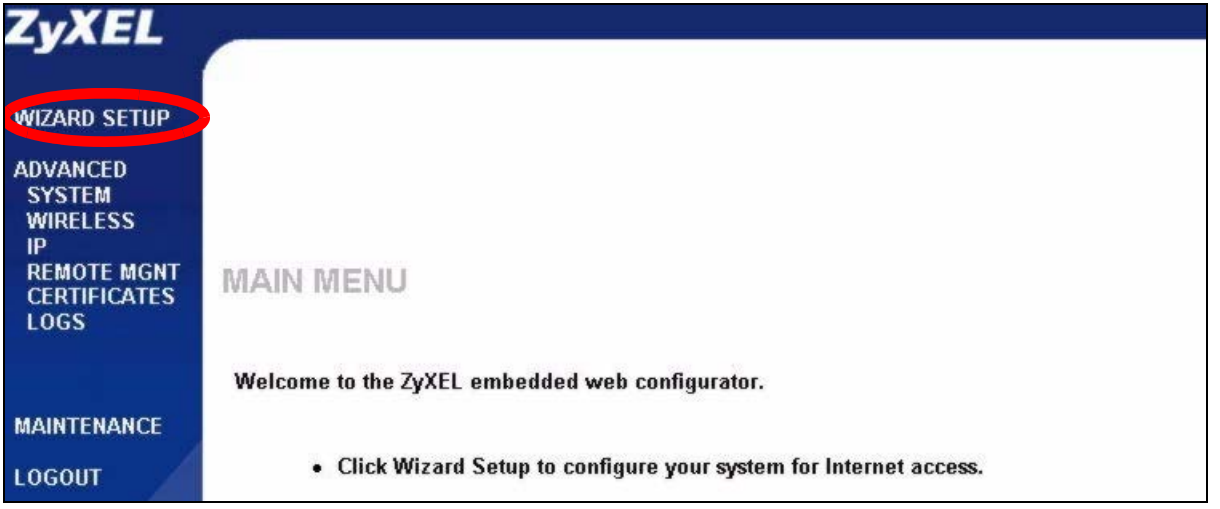
3 Change the login password by entering a new password and clicking **Apply**.



4 Click **Apply** to create a certificate using your ZyAIR's MAC address that will be specific to this device; alternatively click **Ignore** to proceed if you do not want to change the certificate now.

Replace Factory Default Certificate
The factory default certificate is common to all ZyAIR models. Click Apply to create a certificate using your ZyAIR's MAC address that will be specific to this device.
Apply
Ignore

5 Click **WIZARD SETUP** in the **MAIN MENU** screen.



3 Internet Access Setup

Use the setup wizard to configure your ZyAIR for wireless stations to access your wired LAN.

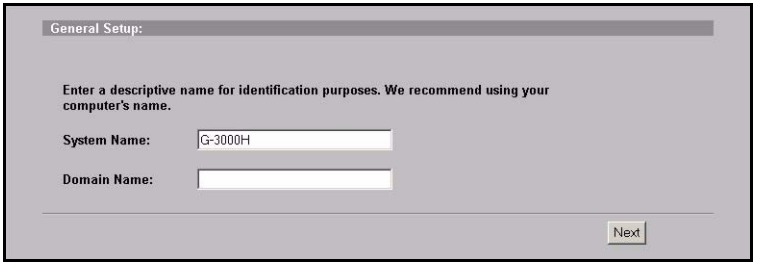
Note: Click **Next** in each screen to continue or click **Back** to return to the previous screen.

Your settings are not saved when you click **Back**.

1 This screen is optional. You can just click **Next**.

System Name is for identifying the ZyAIR. You can enter your computer's "Computer Name".

Domain Name: Enter a domain name if your ISP requires one for authentication; otherwise you can leave it blank or set to whatever may have displayed automatically.



2 Use the second wizard screen to set up the wireless LAN.

Note: The wireless stations and ZyAIR must use the same SSID, channel ID and WEP encryption key (if WEP is enabled) for wireless communication.

Enter a descriptive name to identify the ZyAIR in the wireless LAN.

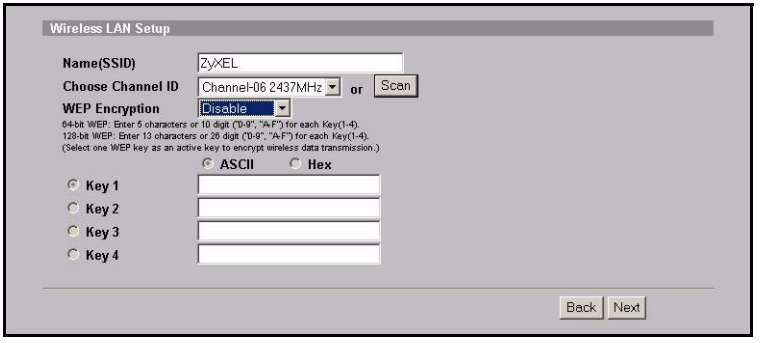
Click **Scan** to have the ZyAIR automatically select a channel and display it in the **Channel ID** field.

Select **64-bit** or **128-bit** to encrypt data frames before transmitting them over the wireless network.

Select **Disable** to turn off WEP data encryption.

Select **ASCII** or **HEX** WEP key input method and then follow the on-screen instructions to set up the WEP keys.

Click **Next** to continue.

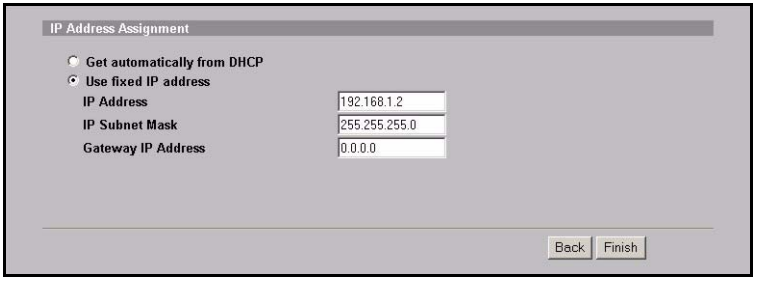


3 Fill in the fields in the last wizard configuration screen.

If you have an IP address to use, select **Use fixed IP address** and enter it along with the subnet mask and gateway IP address.

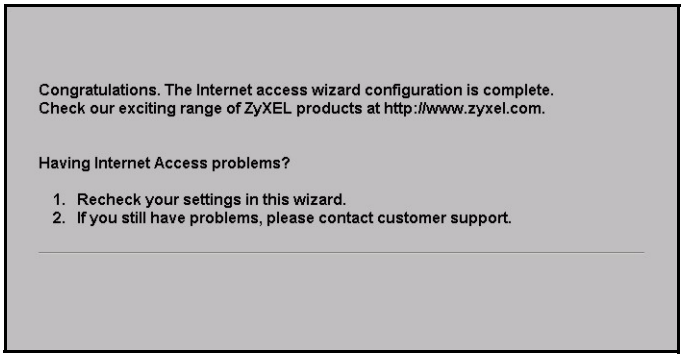
Click **Finish**.

Note: If you change the ZyAIR's IP address, you must use the new IP address if you want to access the web configurator again.



4 Change the wireless parameter settings in the wireless stations to match those of the ZyAIR. Refer to your wireless adapter's documentation.

This is the final wizard screen. You may return to the **MAIN MENU** and continue to configure your ZyAIR.


Congratulations. The Internet access wizard configuration is complete.
Check our exciting range of ZyXEL products at http://www.zyxel.com.
Having Internet Access problems?
1. Recheck your settings in this wizard.
2. If you still have problems, please contact customer support.

4 Hardware Installation

4.1 Attaching Antennas

Note: When facing the front of the ZyAIR, the right antenna (main antenna) transmits and receives, the left antenna only receives.

Follow the steps below to connect the supplied antennas.

1 Locate the antenna connectors on the sides of your ZyAIR.

2 Screw the antennas clockwise onto the antenna connectors. The antennas should be perpendicular to the ground and parallel to each other.

Note: Make sure the antennas are securely screwed onto the antenna connectors.

4.2 Hardware Mounting Installation

In general, the best location for the access point is at the center of your intended wireless coverage area. For better performance, mount the ZyAIR high up free of obstructions.

Free-standing

Place your ZyAIR on a flat, level surface (on a desk or shelf) that is strong enough to support the weight of the ZyAIR with connection cables.

Wall-mounted

Follow the steps to attach your ZyAIR to a wall.

1 Locate a high position on the wall that is free of obstructions.

2 Connect two screws (not included) in the wall 60mm apart. You can use the diagram at the end of this guide to help you mark the screw holes correctly. Use screws with 6mm ~ 8mm (0.24" ~ 0.31") wide heads. Do not screw the screws all the way in to the wall. Leave a small gap between the head of the screw and the wall. The gap must be big enough for the screw heads to slide into the screw slots and the connection cables to run down the back of the ZyAIR.

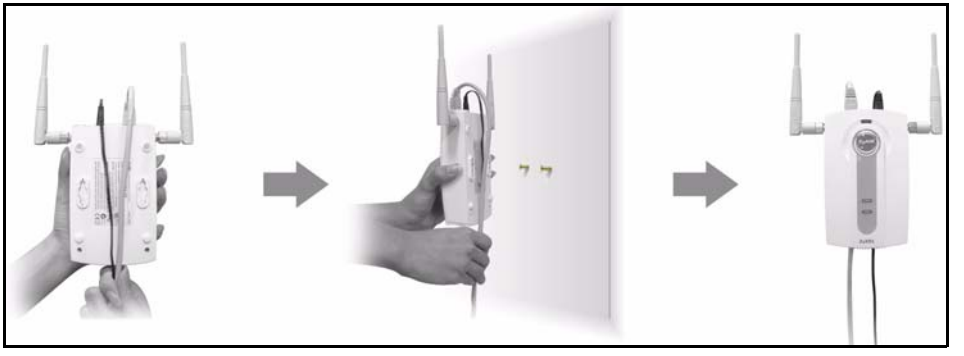
Note: Make sure the screws are securely fixed to the wall and strong enough to hold the weight of the ZyAIR with the connection cables.

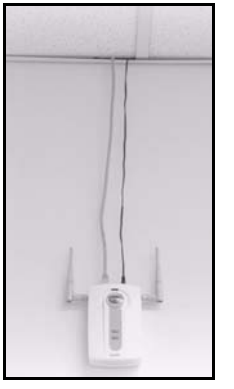
3 Adjust the cables.

Run the connection cables down the back of the ZyAIR as shown in the following figure.

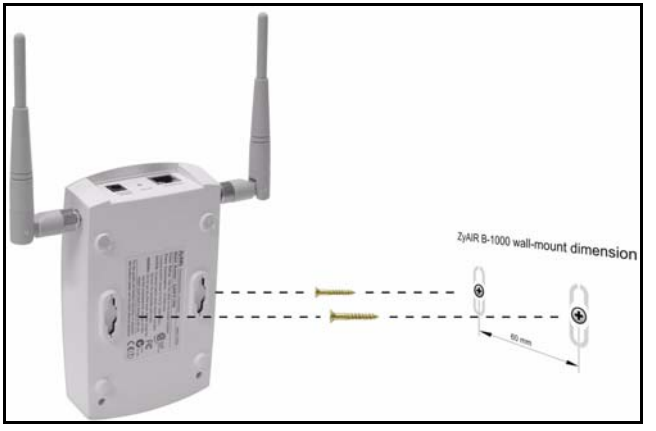
OR:

Run the connection cables upward and along the edge of the ceiling.





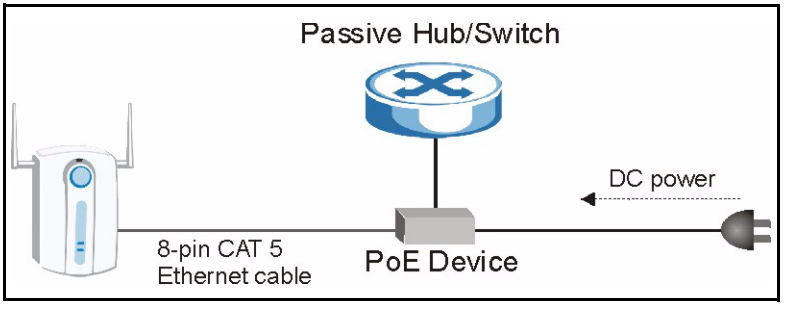
4 Align the holes on the back of the ZyAIR with the screws on the wall. Hang the ZyAIR on the screws.



5 Power over Ethernet (PoE)

Power over Ethernet (PoE) is the ability to provide power to your ZyAIR via an 8-pin CAT 5 Ethernet cable, eliminating the need for a nearby power source.

An injector or PoE device (not included) is also needed to supply the Ethernet cable with power. This feature allows increased flexibility in the locating of your ZyAIR.



6 Troubleshooting

Problem	Corrective Action
The **PWR** LED is off.	Make sure you are using the correct power adaptor and the power adaptor is plugged into an appropriate power supply. Unplug the power adaptor and plug it in again. If the error persists, you may have a hardware problem. In this case, you should contact your vendor.

Problem	Corrective Action
The **ETHN** LED is off.	Check the cable connection to the ZyAIR **ETHERNET** port. Make sure your computer's network card is working properly.
I cannot access the web configurator.	Make sure the IP addresses and subnet masks of the ZyAIR and the computer are in the same IP address range. (For example, if the ZyAIR is using the default IP address and subnet mask, check that the IP address of the computer is in the range 192.168.1.3 ~192.168.1.254 and the subnet mask is 255.255.255.0). Refer to the Set Up Your Computer's IP Address section. If you changed the ZyAIR default IP address, then enter the new IP address as the web site address. The default password is "1234". If you have changed the password and have now forgotten it, you will need to reset the ZyAIR. Refer to the User's Guide for how to use the **RESET** button.
	Make sure the ZyAIR is connected to the network. Make sure you entered your username correctly. A username may be case-sensitive.
I cannot ping any computer on the wireless LAN.	If the **ETHN** LED is off, check the cables between the ZyAIR and your computer or hub. Verify that the IP address and the subnet mask of the ZyAIR and the computers are in the same range.

6.1 Procedure to View a Product's Certification(s)

1. Go to www.zyxel.com.
2. Select your product from the drop-down list box on the ZyXEL home page to go to that product's page.
3. Select the certification you wish to view from this page.